

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Claim 1 (Currently amended): A method for making an isomalto-oligosaccharide grain composition said method comprising:

(a) contacting ~~[[a]]~~ an ungelatinized starch in grain (insoluble starch) with a maltogenic enzyme and a starch liquefying enzyme to produce maltose;

(b) contacting said maltose with a transglucosidic enzyme, wherein said steps (a) and ~~step~~ (b) occur at a temperature less than or at ~~a starch~~ the gelatinization temperature of said starch;
and

(c) obtaining a grain composition having an enzymatically produced isomalto-oligosaccharide, wherein said oligosaccharide is obtained from said grain.

Claim 2 (Original): The method according to claim 1, wherein said steps (a) and (b) occur concurrently.

Claim 3 (Currently amended): The method according to claim 1, further comprising the step of drying said isomalto-oligosaccharide with ~~and~~ or without separating insoluble solids.

Claim 4 (Original): The method according to claim 1, wherein said grain is selected from the group consisting of wheat, rye, barley, and malt.

Claim 5 (Original): The method according to claim 1, wherein said grain is selected from the group consisting of millet, sorghum and rice.

Claim 6 (Original): The method according to claim 1, wherein said maltogenic enzyme

is a beta amylase.

Claim 7 (Original): The method according to claim 1, wherein said maltogenic enzyme is endogenous to said grain.

Claim 8 (Currently amended): The method according to claim 1, wherein said starch liquefying enzyme is an alpha amylase obtained from a ~~Bacillus~~ Bacillus species.

Claim 9 (Currently amended): The method according to claim 8, wherein said starch liquefying enzyme Bacillus species is ~~obtained from Bacillus licheniformis~~ Bacillus licheniformis or ~~Bacillus stearothermophilus~~ Bacillus stearothermophilus.

Claim 10 (Original): The method according to claim 1, wherein said transglucosidic enzyme is a transglucosidase.

Claim 11 (Currently amended): The method according to claim 10, wherein said transglucosidase is obtained from ~~Aspergillus~~ an Aspergillus species.

Claim 12 (Currently amended): The method according to claim 11, wherein said ~~Aspergillus~~ Aspergillus species is ~~Aspergillus niger~~ Aspergillus niger.

Claims 13-17 (Cancelled)

Claim 18 (Previously presented): A method according to claim 1, wherein said isomalto-oligosaccharide is further purified.

Claim 19 (Previously presented): The method of claim 1, wherein said isomalto-oligosaccharide is used as a food additive.

Claim 20 (Previously presented): The method of claim 1, wherein said isomaltoligosaccharide is used in a flour composition.

Claim 21 (Previously presented): The method of claim 1, wherein said isomaltoligosaccharide is used in an oral rehydration solution.

Claim 22 (Cancelled)

Claim 23 (Currently amended): The method of claim 1, wherein said temperature less than or at [[a]] the starch gelatinization temperature is ~~from about 40-50°C~~ below 50°C to 70°C.

Claim 24 (Currently amended): The method of claim 1, wherein said temperature less than or at [[a]] the starch gelatinization temperature is ~~from about 50-75°C~~ below 55°C to 65°C.

Claim 25 (Currently amended): The method of claim 1, wherein said temperature less than or at [[a]] the starch gelatinization temperature is ~~from about 55-70°C~~ below 60°C.

Claim 26 (New): The method of claim 6, wherein said beta amylase is obtained from a fungal, bacterial, or plant source.

Claim 27 (New): The method of claim 6, wherein said beta amylase is obtained from a *Bacillus* species.

Claim 28 (New): The method of claim 27, wherein said *Bacillus* species is selected from *Bacillus stearothermophilus*, *Bacillus amyloliquefaciens*, and *Bacillus licheniformis*.

Claim 29 (New): The method of claim 6, wherein said beta amylase is obtained from

a plant source selected from soybean, wheat, and barley.

Claim 30 (New): The method of claim 1, wherein step (a) further comprises contacting said ungelatinized starch with a debranching enzyme.

Claim 31 (New): The method of claim 30, wherein said debranching enzyme is a pullulanase enzyme.